

Title (en)
PNEUMATIC ACTUATION SYSTEM AND METHOD

Title (de)
PNEUMATISCHES BETÄTIGUNGSSYSTEM UND VERFAHREN

Title (fr)
SYSTÈME ET PROCÉDÉ D'ACTIONNEMENT PNEUMATIQUE

Publication
EP 3259511 B1 20210526 (EN)

Application
EP 16752952 A 20160217

Priority
• US 201562118623 P 20150220
• US 2016018183 W 20160217

Abstract (en)
[origin: WO2016133971A1] An apparatus includes a plurality of pneumatic linear actuator modules, a dynamic actuator linkage, and a static actuator linkage. Each of the plurality of pneumatic linear actuator modules includes a static portion and a dynamic portion. The dynamic portion is movable in a linear fashion relative to the static portion. The dynamic actuator linkage connects the dynamic portion of each of the plurality of pneumatic linear actuator modules to a moveable portion of a device. The static actuator linkage connects the static portion of each of the plurality of pneumatic linear actuator modules to an immovable portion of the device. A number of pneumatic linear actuator modules one less than the plurality of pneumatic linear actuator modules are able to provide linear actuation to the device. Each of the plurality of actuator modules is configured to selectively couple and decouple to the dynamic actuator linkage and the static actuator linkage.

IPC 8 full level
F16K 31/44 (2006.01); **F15B 5/00** (2006.01); **F15B 15/02** (2006.01); **F15B 15/10** (2006.01); **F15B 15/14** (2006.01)

CPC (source: EP RU US)
F15B 15/02 (2013.01 - EP US); **F15B 15/103** (2013.01 - EP US); **F15B 15/1404** (2013.01 - EP RU US); **F15B 15/1409** (2013.01 - RU US); **F15B 15/2815** (2013.01 - US); **F16K 31/122** (2013.01 - RU); **F15B 5/006** (2013.01 - EP US); **F15B 2211/30595** (2013.01 - EP US); **F15B 2211/365** (2013.01 - EP US); **F15B 2211/6313** (2013.01 - EP US); **F15B 2211/6336** (2013.01 - EP US); **F15B 2211/665** (2013.01 - EP US); **F15B 2211/6653** (2013.01 - EP US); **F15B 2211/7107** (2013.01 - EP US); **F15B 2211/865** (2013.01 - EP US)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
WO 2016133971 A1 20160825; CA 2976228 A1 20160825; CA 2976228 C 20190716; CN 107532749 A 20180102; CN 107532749 B 20200107; EP 3259511 A1 20171227; EP 3259511 A4 20181107; EP 3259511 B1 20210526; JP 2018506008 A 20180301; JP 6538205 B2 20190703; MX 2017010606 A 20180302; RU 2017132186 A 20190320; RU 2017132186 A3 20190320; RU 2687550 C2 20190514; US 10077789 B2 20180918; US 2016245312 A1 20160825

DOCDB simple family (application)
US 2016018183 W 20160217; CA 2976228 A 20160217; CN 201680023671 A 20160217; EP 16752952 A 20160217; JP 2017562565 A 20160217; MX 2017010606 A 20160217; RU 2017132186 A 20160217; US 201615045547 A 20160217